The president of Cleantech, Inc., has just approached the company's bank seeking short-term financing for the coming year, Year 2. Cleantech is a distributor of commercial vacuum cleaners. The bank has stated that the loan request must be accompanied by a detailed cash budget that shows the quarters in which financing will be needed, as well as the amounts that will be needed and the quarters in which repayments can be made.

To provide this information for the bank, the president has directed that the following data be gathered from which a cash budget can be prepared:

a. Budgeted sales and merchandise purchases for Year 2, as well as actual sales and purchases for the last quarter of Year 1, are as follows:

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | *Sales* | *Merchandise Purchases* | |
| 3 | Year 1: | | | |
| 4 | Fourth quarter actual | $300,000 | $180,000 | |
| 5 | Year 2: | | | |
| 6 | First quarter estimated | 400,000 | 260,000 | |
| 7 | Second year estimated | 500,000 | 310,000 | |
| 8 | Third quarter estimated | 600,000 | 370,000 | |
| 9 | Fourth quarter estimated | 480,000 | 240,000 | |
| 10 | | | | |

b. The company typically collects 33% of a quarter's sales before the quarter ends and another 65% in the following quarter. The remainder is uncollectible. This pattern of collections is now being experienced in the actual data for the Year 1 fourth quarter.

c. Some 20% of a quarter's merchandise purchases are paid for within the quarter. The remainder is paid in the following quarter.

d. Operating expenses for Year 2 are budgeted at $90,000 per quarter plus 12% of sales. Of the fixed amount, $20,000 each quarter is depreciation.

e. The company will pay $10,000 in cash dividends each quarter.

f. Land purchases will be made as follows during the year: $80,000 in the second quarter and $48,500 in the third quarter.

g. The Cash account contained $20,000 at the end of Year 1. The company must maintain a minimum cash balance of at least $18,000.

h. The company has an agreement with a local bank that allows the company to borrow in increments of $10,000 at the beginning of each quarter, up to a total loan balance of $100,000. The interest rate on these loans is 1% per month, and for simplicity, we will assume that interest is not compounded. The company would, as far as it is able, repay the loan plus accumulated interest at the end of the year.

i. At present, the company has no loans outstanding.

***Required:***

1. Prepare the following, by quarter and in total, for Year 2:
   *a.* A schedule of expected cash collections on sales.
   *b.* A schedule of expected cash disbursements for merchandise purchases.
2. Compute the expected cash disbursements for operating expenses, by quarter and in total, for Year 2.
3. Prepare a cash budget by quarter and in total for Year 2.